Pubertal assays:
An overview of the studies being brought to the EDMVS
at the December 2001 meeting

EPA is bringing three pubertal studies to the EDMVS for consideration and discussion at the December 2001 meeting. All are related to the "pre-validation" stage of the validation process:

- "Single-dose" study of 6 chemicals
  EPA has demonstrated that the pubertal assays have been standardized and can be successfully performed in a contract lab (i.e., outside of a pure research context). Data from this study will be presented to the EDMVS. The purpose of discussing this study is to confirm that the pubertal assay is ready for the next steps in pre-validation.

- "Multi-dose" study
  EPA is about to examine the sensitivity of the pubertal assays to relatively weak compounds (vinclozolin and methoxychlor). The design of the multi-dose study will be presented for EDMVS consideration.

- "Array" study of 10 chemicals at 2 doses each
  EPA is about to examine the sensitivity of the pubertal assays to different mechanisms of endocrine activity. The design of the multi-chemical array study will be presented for EDMVS consideration. The array study will be conducted in parallel with the multi-dose study, but by a different contract laboratory.

<u>Future involvement of the EDMVS with validation of the pubertal assays</u>

When the multi-dose and array studies have been completed, EPA intends to bring the data to the EDMVS for discussion.

The EDMVS will be asked to examine the study design of (and, eventually, the data from) one additional study related to pre-validation of the pubertal assays. EPA intends to examine the effects of decreased body weight gain on the pubertal assay endpoints, to confirm that the effects of decreased food consumption can be distinguished from the direct effects of hormonally active agents. This study is planned for initiation after the multi-dose study has been completed, mainly for logistical rather than purely logical reasons.

Following successful completion of the pre-validation studies, EPA will run identical assays in several laboratories to examine inter-laboratory replicability. EPA plans to bring the study design for this inter-laboratory validation study to the EDMVS for discussion. Data from this study will also be offered to the EDMVS for discussion when the study is completed.